CLAIMS

We claim:

1. A method for making a medicament delivery device having a lubricated sealing member, comprising the steps of:

(a) coating the sealing member with a polymeric silicone having a plurality of polymer molecules; and

(b) irradiating the coated sealing member to thereby adhere the polymeric silicone to the sealing member.

2. The method of Claim 1 further including the steps of performing step (a) on a plurality of sealing members and placing the plurality of coated sealing members in a sealable package and wherein step (b) is performed by exposing the plurality of sealing members and the sealable package to Cobalt irradiation at a target dose between approximately 2.5 and approximately 4.0 Mrads, thereby forming a plurality of crosslinking bonds between a plurality of the polymer molecules.

3. The method of Claim 1 further including the step of placing the coated and irradiated sealing member into a non-lubricated cylindrical glass chamber of a medicament delivery device, the sealing member being slidable within the cylindrical glass chamber and in fluid-tight engagement with an interior wall of the cylindrical glass chamber.

4. The method of Claim 3 further including the step of sterilizing the coated sealing member and the non-lubricated cylindrical glass chamber after placing the coated sealing member into the non-lubricated cylindrical glass chamber.

5. The method of Claim 1 wherein step (b) includes exposing the coated sealing member to a radiation level in the range from approximately 2.5 to 4.0 Mrads.

6. The method of Claim 1 wherein step (a) is performed by tumbling the sealing member with the polymeric silicone.

7. The method of Claim 1 further including the steps of washing the sealing member in deionized water, rinsing the sealing member in deionized water, and then drying the sealing member prior to coating the sealing member.

8. The method of Claim 1 wherein step (a) includes selecting the polymeric silicone from the group of phenyl substituted silicones consisting of dimethyldiphenylpolysiloxane copolymers; dimethyl, methylphenylpolysiloxane copolymers; polymethylphenylsiloxane; and methylphenyl, dimethylsiloxane copolymers.

9. The method of Claim 1 wherein step (a) is performed by coating the sealing member with a polymeric silicone having a viscosity in a range from about 12,500 centistokes to about 100,000 centistokes.

5

10. A medicament delivery device comprising:

a sealing member body;

a lubricating coating on said sealing member body, said lubricating coating comprising a polymeric silicone having a plurality of polymer molecules that has been irradiated and adhered to said sealing member body.

11. A medicament delivery device as recited in Claim 10 wherein said lubricating coating has been irradiated with Cobalt at a target dose between approximately 2.5 and approximately 4.0 Mrads and wherein at least some of said plurality of molecules are crosslinked to each other.

12. A medicament delivery device as recited in Claim 10 wherein said polymeric silicone is a phenyl substituted silicone selected from the group consisting of dimethyldiphenylpolysiloxane copolymers; dimethyl, methylphenylpolysiloxane copolymers; polymethylphenylsiloxane; and methylphenyl, dimethylsiloxane copolymers.

13. A medicament delivery device as recited in Claim 10 wherein said sealing member body is a stopper.

14. A medicament delivery device as recited in Claim 10 wherein said sealing member body is an O-ring.

15. A medicament delivery device as recited in Claim 10 wherein said polymeric silicone has a viscosity in a range from about 12,500 centistokes to about 100,000 centistokes.

16. A medicament delivery device comprising:

a cylindrical barrel made from a non-lubricated glass and having an interior chamber;

a sealing member body received in said interior chamber in a fluid-tight relationship, said sealing member body being slidable within said interior chamber;

a lubricating coating on said sealing member body, said lubricating coating comprising a polymeric silicone having a plurality of molecules, said lubricating coating having been irradiated after application to said sealing member body, said irradiation adhering said polymeric silicone to said sealing member body;

17. A medicament delivery device as recited in Claim 16 further comprising a medicament and wherein said sealing member body has a first side and a second side and said interior chamber includes a first end and a second end;

said medicament being received in said interior chamber and located between said first end of said interior chamber and said first side of said sealing member body.

18. A medicament delivery device as recited in Claim 17 wherein said sealing member body is a stopper and said second side of said stopper is adapted to receive a plunger for moving said stopper from said second end toward said first end, thereby ejecting said medicament from said interior chamber.

19. A medicament delivery device as recited in Claim 17 wherein said first end includes a seal and said cylindrical barrel comprises a medicament cartridge.

20. A medicament delivery device as recited in Claim 19 wherein said cylindrical barrel comprises a syringe, said first end is adapted to receive a needle cannula and to be in fluid communication with said needle cannula when said needle cannula is received on said first end.